IN THE CLAIMS

Please amend the claims as follows:

1-4 (Canceled).

5. (Currently Amended): An optical signal amplifier, comprising:

at least one source of pumping light, said source being configured to produce pumping light having a predominant polarization state; and

at least one depolarizer comprising a birefringent optical component having a principal axis oriented at about 45 degrees with respect to said predominant polarization state and coupled to receive said pumping light as an input and having as an output a pumping beam, wherein

a Raman gain medium within said optical signal amplifier is configured to receive said pumping beam and optical signals as inputs and to transfer energy from said pumping beam to said optical signals via stimulated Raman scattering,

said Raman gain medium is a single mode fiber that is backward pumped, and

said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of greater than 1% through 15%.

6. (Currently Amended) The amplifier of Claim 5, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 2% through 13%.

7. (Currently Amended) The amplifier of Claim 6, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 3% through 11%.

8. (Currently Amended) The amplifier of Claim 7, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 4% through 10%.

9. (Currently Amended) The amplifier of Claim 8, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 5% through 9%.

10. (Currently Amended) The amplifier of Claim 9, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 6% through 7%.

11. (Currently Amended) An optical signal amplifier, comprising:

at least one source of pumping light, said source being configured to produce pumping light having a predominant polarization state; and

at least one depolarizer comprising a birefringent optical component having a principal axis oriented at about 45 degrees with respect to said predominant polarization state and coupled to receive said pumping light as an input and having as an output a pumping beam, wherein

a Raman gain medium within said optical signal amplifier is configured to receive said pumping beam and optical signals as inputs and to transfer energy from said pumping beam to said optical signals via stimulated Raman scattering,

said Raman gain medium is a single mode fiber that is forward pumped, and

said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 1% through 10%.

12. (Currently Amended) The amplifier of Claim 11, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 2% through 9%.

13. (Currently Amended) The amplifier of Claim 12, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 3% through 7%.

14. (Currently Amended) The amplifier of Claim 13, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 4% through 6%.

15. (Canceled).

16. (Canceled).

17. (Currently Amended) An optical signal amplifier, comprising:

at least one source of pumping light, said source being configured to produce pumping light having a predominant polarization state; and

at least one depolarizer comprising a birefringent optical component having a principal axis oriented at about 45 degrees with respect to said predominant polarization state and coupled to receive said pumping light as an input and having as an output a pumping beam, wherein

a Raman gain medium within said optical signal amplifier is configured to receive said pumping beam and optical signals as inputs and to transfer energy from said pumping beam to said optical signals via stimulated Raman scattering,

said Raman gain medium is a non-zero dispersion shifted fiber that is backward pumped, and

said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of greater than 1% through 20%.

18. (Currently Amended) The amplifier of Claim 17, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 2% through 16%.

19. (Currently Amended) The amplifier of Claim 18, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 3% through 12%.

20. (Currently Amended) The amplifier of Claim 19, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 4% through 8%.

21. (Currently Amended) The amplifier of Claim 20, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 5% through 7%.

22. (Currently Amended) The amplifier of Claim 21, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization of about 6%.

23. (Canceled).

24. (Currently Amended) An optical signal amplifier, comprising:

at least one source of pumping light, said source being configured to produce pumping light having a predominant polarization state;

at least one depolarizer comprising a birefringent optical component having a principal axis oriented at about 45 degrees with respect to said predominant polarization state and coupled to receive said pumping light as an input and having as an output a pumping beam, wherein said output pumping beam has a degree of polarization in an inclusive range of greater than 1% through approximately 40%; and

a Raman gain medium within said optical signal amplifier is configured to receive said pumping beam and optical signals as inputs and to transfer energy from said pumping beam to said optical signals via stimulated Raman scattering, wherein

said Raman gain medium is a non-zero dispersion shifted fiber that is forward pumped, and

said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 1% through 9%.

25. (Currently Amended) The amplifier of Claim 24, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 2% through 8%.

26. (Currently Amended) The amplifier of Claim 25, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 3% through 7%.

27. (Currently Amended) The amplifier of Claim 26, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 4% through 6%.

28. (Currently Amended) The amplifier of Claim 27, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of about 5%.

29. (Canceled).

30. (Currently Amended) An optical signal amplifier, comprising:

at least one source of pumping light, said source being configured to produce pumping light having a predominant polarization state;

at least one depolarizer comprising a birefringent optical component having a principal axis oriented at about 45 degrees with respect to said predominant polarization state and coupled to receive said pumping light as an input and having as an output a pumping beam, wherein

a Raman gain medium within said optical signal amplifier is configured to receive said pumping beam and optical signals as inputs and to transfer energy from said pumping beam to said optical signals via stimulated Raman scattering,

said Raman gain medium is a dispersion compensation fiber that is forward pumped, and

said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of greater than 1% through 20%.

31. (Currently Amended) The amplifier of Claim 30, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 2% through 16%.

32. (Currently Amended) The amplifier of Claim 31, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 3% through 12%.

33. (Currently Amended) The amplifier of Claim 32, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 4% through 8%.

34. (Currently Amended) The amplifier of Claim 33, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 5% through 7%.

35. (Currently Amended) The amplifier of Claim 34, wherein said at least one depolarizer is configured to provide an output pumping beam that has a degree of polarization of about 6%.

36. (Currently Amended) A method of managing polarization dependent gain in a Raman amplifier, comprising:

producing pumping light having a predominant polarization state by at least one source of pumping light;

routing the thus produced pumping~~laser~~ light ~~having a predominant polarization state~~ through a single birefringent component that has a principal axis oriented at about 45 degrees with respect to said predominant polarization state ~~so as to produce a pumping beam which~~

~~has a degree of polarization in an inclusive range~~and is coupled to receive said pumping light as an input and produce an output of a pumping beam;

routing said pumping beam and optical signals as inputs to a Raman gain medium within said Raman amplifier and transferring energy from said pumping beam to said optical signals via stimulated Raman scattering, said Raman gain medium being a single mode optical fiber that is backward pumped; and

determining ~~said~~a degree of polarization of a pumping light source in accordance with athe Raman gain medium, and selecting a light source having the determined degree of polarization so as to set a polarization degree of gain to a level lower than a predetermined polarization degree of gain value in an inclusive range of greater than 1% through 15%.

37-40. (Canceled).

41. (Currently Amended) The method of Claim 3640, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 2% through 13%.

42. (Currently Amended) The method of Claim 41, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 3% through 11%.

43. (Currently Amended) The method of Claim 42, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 4% through 10%.

44. (Currently Amended) The method of Claim 43, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 5% through 9%.

45. (Currently Amended) The method of Claim 44, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 6% through 7%.

46. (Currently Amended) The method of Claim 36~~38~~, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 1% through 10%.

47. (Currently Amended) The method of Claim 46, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 2% through 9%

48. (Currently Amended) The method of Claim 47, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 3% through 7%.

49. (Currently Amended) The method of Claim 48, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 4% through 6%.

50. (Original) The method of Claim 36, wherein said Raman gain medium being a non-zero dispersion shifted fiber.

51. (Original) The method of Claim 50, wherein said Raman gain medium being a non-zero dispersion shifted fiber that is backward pumped.

52. (Currently Amended) The method of Claim 51, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of greater than 1% through 20%.

53. (Currently Amended) The method of Claim 52, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 2% through 16%.

54. (Currently Amended) The method of Claim 53, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 3% through 12%.

55. (Currently Amended) The method of Claim 54, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 4% through 8%.

56. (Currently Amended) The method of Claim 55, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 5% through 7%.

57. (Currently Amended) The method of Claim 54, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization of about 6%.

58. (Original) The method of Claim 50, wherein said Raman gain medium being a non-zero dispersion shifted fiber that is forward pumped.

59. (Currently Amended) The method of Claim 58, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 1% through 9%.

60. (Currently Amended) The method of Claim 59, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 2% through 8%.

61. (Currently Amended) The method of Claim 60, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 3% through 7%.

62. (Currently Amended) The method of Claim 61, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of above 4% through 6%.

63. (Currently Amended) The method of Claim 62, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of about 5%.

64. (Original) The method of Claim 36, wherein said Raman gain medium being a forward pumped dispersion compensating fiber.

65. (Currently Amended) The method of Claim 64, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of greater than 1% through 20%.

66. (Currently Amended) The method of Claim 65, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 2% through 16%.

67. (Currently Amended): The method of Claim 66, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 3% through 12%.

68. (Currently Amended) The method of Claim 67, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 4% through 8%.

69. (Currently Amended) The method of Claim 68, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization in an inclusive range of 5% through 7%.

70. (Currently Amended) The method of Claim 69, wherein said ~~depolarizer~~single birefringent component is configured to provide an output pumping beam that has a degree of polarization of about 6%.

71. (Canceled).

72. (Canceled).

73. (Previously Presented) A light source for pumping a Raman gain medium in a Raman amplifier, comprising:

a laser light source configured to produce an output light beam having a predominant polarization state; and

a single birefringent component having an input port and an output port, wherein said input port is configured to receive said output light beam and having a principal axis oriented at about 45 degrees with respect to said predominant polarization state so as to produce a pumping beam which has a degree of polarization in an inclusive range of greater than 1% through about 10%, wherein

said output port is configured to couple said pumping beam to said Raman gain medium, and

said Raman gain medium is a single mode fiber that is forward pumped.

74. (Previously Presented) A light source for pumping a Raman gain medium in a Raman amplifier, comprising:

a laser light source configured to produce an output light beam having a predominant polarization state; and

a single birefringent component having an input port and an output port, wherein said input port is configured to receive said output light beam and having a principal axis oriented at about 45 degrees with respect to said predominant polarization state so as to produce a pumping beam which has a degree of polarization in an inclusive range of greater than 1% through about 15%, wherein

said output port is configured to couple said pumping beam to said Raman gain medium, and

said Raman gain medium is a single mode fiber that is backward pumped.

75. (Canceled).

76. (Previously Presented) A light source for pumping a Raman gain medium in a Raman amplifier, comprising:

a laser light source configured to produce an output light beam having a predominant polarization state; and

a single birefringent component having an input port and an output port, wherein said input port is configured to receive said output light beam and having a principal axis oriented at about 45 degrees with respect to said predominant polarization state so as to produce a pumping beam which has a degree of polarization in an inclusive range of greater than 1% through about 9%, wherein

said output port is configured to couple said pumping beam to said Raman gain medium, and

said Raman gain medium is a non-zero dispersion shifted optical fiber that is forward pumped.

77. (Previously Presented) A light source for pumping a Raman gain medium in a Raman amplifier, comprising:

a laser light source configured to produce an output light beam having a predominant polarization state; and

a single birefringent component having an input port and an output port, wherein said input port is configured to receive said output light beam and having a principal axis oriented at about 45 degrees with respect to said predominant polarization state so as to produce a

pumping beam which has a degree of polarization in an inclusive range of greater than 1% through about 20%, wherein

said output port is configured to couple said pumping beam to said Raman gain medium, and

said Raman gain medium is a non-zero dispersion shifted fiber that is backward pumped.

78. (Previously Presented) A light source for pumping a Raman gain medium in a Raman amplifier, comprising:

a laser light source configured to produce an output light beam having a predominant polarization state; and

a single birefringent component having an input port and an output port, wherein said input port is configured to receive said output light beam and having a principal axis oriented at about 45 degrees with respect to said predominant polarization state so as to produce a pumping beam which has a degree of polarization in an inclusive range of greater than 1% through about 20%, wherein

said output port is configured to couple said pumping beam to said Raman gain medium, and

said Raman gain medium is a dispersion compensating fiber that is forward pumped.

79. (Previously Presented) The method of Claim 36, wherein said step of determining said degree of polarization includes determining a direction to be pumped.

80-82. (Canceled).